


**Going on a Bear Hunt**


Name_____

Step 1: Separate and count the m & m's you were given – complete the following table (you can eat the red ones, just count the orange, green, yellow & brown)

| Color | Red | Blue | Orange | Green | Yellow | Brown | **TOTAL** |
|---|---|---|---|---|---|---|---|
| Count | | | | | | | |
| Percent of total | | | | | | | |

Step 2: M & M's advertises the following distribution: 24% cyan blue, 20% orange, 16% green, 14% bright yellow, 13% red, 13% brown. Is there statistical evidence that our m & m's follow that distribution? Demonstrate your test.

Step 3: The Hunt…

Document how many of each you found:

| Color | Orange | Blue | Green | Brown | **TOTAL** |
|---|---|---|---|---|---|
| Count | | | | | |
| Percent of total | | | | | |

Step 4: Compare the proportion you found to the expected proportions. What are the ways you can compare – perform whatever test or calculations you need to. Explain what you are doing.

Step 5: Follow-up questions

1. How did your outside bear hunt proportions compare to your expected? Why do you think that happened?

2. What type of bias happened? How could it have been prevented (if at all)?

3. With the bias introduced, what can I do with my sample to remove it? How would you replicate this to remove the bias (what kind of sampling techniques might help)?